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**ASSIGNMENT BOOKLET 3A**MAT1225 Mathematics 14  
Module 3: Section 1 Assignment**FOR STUDENT USE ONLY**

Date Assignment Submitted:

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Time Spent on Assignment:

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(If label is missing or incorrect)

Student File Number:

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Module Number: 

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**FOR OFFICE USE ONLY**

Assigned

Teacher: 

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Assignment

Grading: 

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Graded by: 

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Date Assignment Received:

**Student's Questions  
and Comments****Apply Module Label Here****Name****Address****Postal Code***Please verify that preprinted label is for  
correct course and module.***Teacher's Comments**

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**Teacher**



# INSTRUCTIONS FOR SUBMITTING THIS DISTANCE LEARNING ASSIGNMENT BOOKLET

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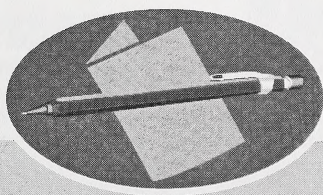


# **Mathematics 14**

## **Module 3**

### **Fractions, Ratio, and Percent**

#### **ASSIGNMENT BOOKLET 3A**





## FOR TEACHER'S USE ONLY

### Summary

	Total Possible Marks	Your Mark
Section 1 Assignment	40	
	40	

### Teacher's Comments

Mathematics 14  
Module 3: Fractions, Ratio, and Percent  
Assignment Booklet 3A  
Section 1 Assignment  
Learning Technologies Branch  
ISBN 0-7741-2532-2

**The Learning Technologies Branch acknowledges with appreciation the Alberta Distance Learning Centre and Pembina Hills Regional Division No. 7 for their review of this Assignment Booklet.**

This document is intended for	
Students	✓
Teachers	✓
Administrators	
Home Instructors	
General Public	
Other	

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**ASSIGNMENT BOOKLET 3A**  
**MATHEMATICS 14: MODULE 3**  
**SECTION 1 ASSIGNMENT**

Your mark for this module will be determined in part by how well you do your assignments.

This Assignment Booklet is worth 40 marks out of the total 100 marks for the assignments in Module 3. The value of each assignment and each question is stated in the left margin.

Work slowly and carefully. If you have difficulty, go back and review the appropriate lessons.

Be sure to proofread your answers carefully.

40

**Section 1 Assignment: Fractions**

**Read all parts of your assignment carefully and record your answers in the appropriate places. Clearly show how you arrived at your answers by showing your work.**

2

1. Does the given fraction have a numerator larger than its denominator? Answer **Yes** or **No**.

a.  $\frac{4}{11}$  \_\_\_\_\_

b.  $\frac{11}{4}$  \_\_\_\_\_



Turn to Section 1: Lesson 2 in the Module 3 Student Module Booklet.

1

2. a. Change the improper fraction  $\frac{11}{5}$  to a mixed number.

1

- b. Change the mixed number  $3\frac{2}{5}$  to an improper fraction.



Turn to Section 1: Lesson 3 in the Module 3 Student Module Booklet.



③

3. a. Find three fractions that are equivalent to  $\frac{6}{15}$ .

②

- b. Find the simplest form of  $\frac{6}{15}$ .



Turn to Section 1: Lesson 4 in the Module 3 Student Module Booklet.

⑥

4. Evaluate the following sums and differences.

a.  $\frac{2}{3} + \frac{2}{3}$

b.  $\frac{5}{12} - \frac{4}{12}$

c.  $\frac{2}{3} + \frac{1}{6}$

d.  $\frac{7}{10} - \frac{2}{3}$

e.  $2\frac{1}{2} + 1\frac{1}{5}$

f.  $7\frac{5}{12} - 6\frac{3}{4}$



Turn to Section 1: Lesson 5 in the Module 3 Student Module Booklet.

④

5. Evaluate the following products.

a.  $\frac{1}{3} \times \frac{1}{5}$

b.  $\frac{2}{3} \times \frac{3}{5}$

c.  $3\frac{2}{5} \times 2\frac{3}{4}$

d.  $\frac{5}{6} \times \frac{3}{10} \times \frac{2}{3}$



Turn to Section 1: Lesson 6 in the Module 3 Student Module Booklet.

③

6. Evaluate the following quotients.

a.  $\frac{1}{3} \div \frac{1}{5}$

b.  $\frac{2}{3} \div \frac{3}{5}$

c.  $1\frac{1}{2} \div 3\frac{1}{5}$



Turn to the Section 1 Conclusion in the Module 3 Student Module Booklet.

①

7. What fraction of a pink double hexagon is represented by eight green triangles?

---

---

②

8. Circle all of the improper fractions in the list.

$$\frac{1}{3}, \frac{5}{3}, \frac{2}{5}, \frac{1}{8}, \frac{10}{8}, \frac{7}{6}, \frac{1}{10}, \frac{135}{25}$$

①

9. How many whole double hexagons can 11 blue rhombi cover?

---

---

①

10. Change  $2\frac{2}{3}$  into an improper fraction.

①

11. Change  $\frac{23}{12}$  into a mixed number.

②

12. Which pairs of fractions in the list below are equivalent?

$$\frac{2}{3}, \frac{3}{5}, \frac{4}{6}, \frac{6}{10}, \frac{8}{10}, \frac{8}{12}$$

①

13. What is the simplest form of  $\frac{25}{45}$ ?

①

14. Draw a sketch of pattern blocks showing how the following equation can be solved.

a.  $\frac{1}{6} + \frac{1}{4} = \frac{\square}{12}$



- ④ 15. Evaluate the following. Show the paper-and-pencil steps involved in the solutions. Give your answers in simplest form.


a.  $\frac{5}{6} + 1\frac{1}{4}$

b.  $2\frac{1}{3} - 1\frac{3}{8}$

- ④ 16. Evaluate the following. Show the paper-and-pencil steps involved in the solutions. Give your answers in the simplest form.

a.  $\frac{5}{12} \times 1\frac{3}{4}$

b.  $2\frac{1}{5} \div 1\frac{3}{8}$



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v.3 booklet B

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MAT1225 Mathematics 14

Module 3: Section 2 Assignment and Final Module Assignment

**FOR STUDENT USE ONLY**

Date Assignment Submitted:

\_\_\_\_\_

Time Spent on Assignment:

\_\_\_\_\_

(If label is missing or incorrect)

Student File Number:

\_\_\_\_\_

Module Number: \_\_\_\_\_

**FOR OFFICE USE ONLY**

Assigned

Teacher: \_\_\_\_\_

Assignment

Grading: \_\_\_\_\_

Graded by: \_\_\_\_\_

Date Assignment Received:

**Student's Questions  
and Comments****Apply Module Label Here****Name****Address****Postal Code***Please verify that preprinted label is for  
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**Teacher**

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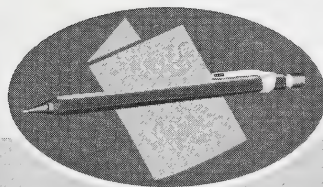


# **Mathematics 14**

## **Module 3**

### **Fractions, Ratio, and Percent**

#### **ASSIGNMENT BOOKLET 3B**



**Learning  
Technologies  
Branch**

**Alberta**  
LEARNING

## FOR TEACHER'S USE ONLY

### Summary

	Total Possible Marks	Your Mark
Section 2 Assignment	40	
Final Module Assignment	20	
	60	

### Teacher's Comments

Mathematics 14  
Module 3: Fractions, Ratio, and Percent  
Assignment Booklet 3B  
Section 2 Assignment and Final Module Assignment  
Learning Technologies Branch  
ISBN 0-7741-2533-0

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**ASSIGNMENT BOOKLET 3B**  
**MATHEMATICS 14: MODULE 3**  
**SECTION 2 ASSIGNMENT AND FINAL MODULE ASSIGNMENT**

Your mark for this module will be determined in part by how well you do your assignments.

This Assignment Booklet is worth 60 marks out of the total 100 marks for the assignments in Module 3. The value of each assignment and each question is stated in the left margin.

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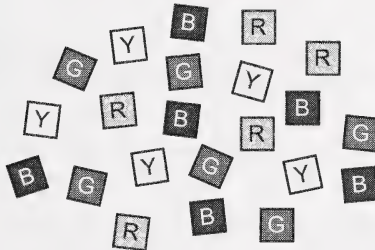
40

**Section 2 Assignment: Ratios, Rates, and Percents**

**Read all parts of your assignment carefully and record your answers in the appropriate places. Clearly show how you arrived at your answers by showing your work.**

1

1. What is the ratio of red squares (R) to green squares (G) in the following diagram?



Turn to Section 2: Lesson 2 in the Module 3 Student Module Booklet.

2

2. Order these ratios from smallest to largest.

$$2:3, 7:11, 3:8, \frac{9}{15} \underline{\hspace{2cm}}$$



Turn to Section 2: Lesson 3 in the Module 3 Student Module Booklet.

- ② 3. a. Express 625 pencils in 25 boxes as a rate.

- ① b. Use this rate to find out how many pencils there are in 10 boxes.



Turn to Section 2: Lesson 4 in the Module 3 Student Module Booklet.

4. Complete the following table. Show your work.

②

	Fraction in Simplest Form	Percent
a.	$\frac{17}{25}$	
b.		118.75%

②



Turn to Section 2: Lesson 5 in the Module 3 Student Module Booklet.

③

5. You are travelling outside of Alberta. You purchase a meal in a restaurant. The provincial sales tax of 6% applies to the meal. So does the 7% GST. The menu price of the meal was \$8.55. What was the cost including taxes? (You can safely assume that you do not pay tax on tax.)



Turn to Section 2: Lesson 6 in the Module 3 Student Module Booklet.



- ② 6. In a photograph, a 30-m tower measures 7.5 cm. The base of the same tower measures 4.8 cm in the picture. How wide is the base of the actual tower? Round your answer to the nearest metre.



Turn to Section 2: Conclusion in the Module 3 Student Module Booklet.

- ② 7. The ratio of sand to cement for use in an indoor mortar should 8:1. Twenty-five kilograms of cement is to be used. How much sand is required?

- ② 8. Express 6000 sheets of paper in 12 boxes as a unit rate.

- ④ 9. In a small store, a 300-g tube of toothpaste sells for \$4.95. In another store, a 175-g tube of toothpaste sells for \$2.98. Which tube of toothpaste is the better buy? Explain why it is the better buy.

**10.** Write each of the following as a ratio in simplest form.

②

**a.** 15%

②

**b.** 37.5%

②

**11.** Write 23:125 as a percent.

④

**12.** Joan marks up the clothing sold in her store by 145%. What was the selling price of a coat she obtains at a wholesale price of \$81.60?

②

**13.** Calculate 45% of 80.



- 14.** A recipe for a fruit bread calls for  $5\frac{1}{3}$  cups of flour and 3 cups of sugar. The recipe makes 3 loaves of bread. You have 16 cups of flour.

②

**a.** How many loaves of fruit bread can you make?

①

**b.** How much sugar would you need?

②

- 15.** A scale drawing of a new subdivision has been completed. One lot on the drawing measures 3.5 cm long by 1.4 cm wide. The actual lot is 18 m wide. How long is the lot?

20

**Final Module Assignment**

**Read all parts of your assignment carefully and record your answers in the appropriate places. Clearly show how you arrived at your answers by showing your work.**

①

1. Draw a sketch of pattern blocks showing how  $\frac{1}{3} - \frac{1}{4} = \frac{\square}{12}$  can be solved.

①

2. What is the simplest form of  $\frac{16}{24}$ ?

②

3. Circle all of the proper fractions in this list.

$$\frac{2}{3}, \frac{35}{15}, \frac{8}{3}, \frac{4}{5}, \frac{6}{8}, \frac{10}{7}, \frac{7}{6}, \frac{9}{10}$$

④

4. Evaluate the following.

a.  $\frac{7}{8} \times \frac{9}{4} \div \frac{12}{16}$

b.  $\frac{1}{2} + \frac{1}{3} - \frac{3}{4}$



- ① 5. Change  $\frac{99}{75}$  into a mixed number.
- ① 6. Change  $7\frac{3}{11}$  into an improper fraction.
- ④ 7. A granola recipe calls for 12 parts rolled oats, 4 parts almonds, 4 parts cashews, 3 parts coconut, 1 part brown sugar, 1 part maple syrup, 1 part vegetable oil, and 4 parts raisins. If 15 kg of the mixture is to be made, how many kilograms of coconut will be used?
- ② 8. Convert the rate “351 pictures in 13 disposable cameras” into a unit rate.
- ② 9. Convert 140:25 to a percent.
- ② 10. 87 is what percent of 217.5?







